

FETP ON THE SCENE

FETP takes learning by doing seriously. Residents spend at least 75% of their time in the field gaining hands-on experience. From participating in outbreak investigations to establishing surveillance systems to conducting studies on public health problems of national concern, FETP is on the scene.

PAIRING UP AGAINST ZIKA

As the largest Zika outbreak in history rages in the Americas, teams of two wind their way through Brazil's narrow streets, knocking on doors in search of answers.

The Brazilian FETP (known as EPISUS) are working in pairs with CDC staff on case control studies. They want to know more about the association between Zika virus and Guillain-Barré, and Zika virus and microcephaly. The only way to learn more is to collect data.

The teams go house-to-house. FETP residents interview household members, and CDC staff provide support and technical expertise. "The most important part of the collaboration was talking with our Brazilian counterparts about what the data actually means in the cultural context. The FETPs provided invaluable assistance in interpreting the data," said Elisabeth Krow-Lucal, a CDC EIS officer who was deployed to Brazil.



Photo: A baby born with microcephaly in Brazil (Source: Mario Tama/Getty)

ANGOLA BATTLES YELLOW FEVER OUTBREAK

As the clock ticks and the case count rises, graduates from the Mozambique FETP have joined the Angola Ministry of Health and other partners to track down suspected cases of yellow fever in homes and hospitals. For months, Angola has been battling the deadliest urban outbreak of yellow fever in Africa in 30 years.

This particular outbreak is concentrated around Angola's capital city, Luanda, paving the way for the disease to spread easily. Identifying cases quickly is crucial. The longer a person is infected, the more dangerous yellow fever becomes.

The team on the ground is using community-based surveillance to locate people with symptoms of this deadly but vaccine-preventable disease. Usually symptoms start mild with a fever and chills, but about 15% progress to a more severe form of illness. Among severe cases, as many as 50% may die.

Contact tracing starts promptly at 8am with a trip to a local health facility. Disease detectives find out which patients have confirmed yellow fever, and they start digging. They need to know where and with whom the sick patients live. They call the patients' families, and search for more cases nearby. Anyone living within 100 meters (less than the length of a football field) of the confirmed case is educated about vaccination and avoiding mosquito bites. They encourage people to report possible cases and seek care early.

Going through this process for each case is arduous. But when you're on the frontlines in the battle against disease, it's all in a day's work.



Photo: Mozambique FELTP and WHO using GPS for disease detection

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A GLIMPSE INTO ZAMBIA'S GROWING FETP

Zambia knows that investing in people pays off. The FETP in Zambia is very new, having started in August 2014. Already residents count among their accomplishments an investigation into a plague outbreak that identified a tendency to under-diagnose bacterial diseases like plague in settings of high malaria prevalence. CDC's Julie Harris, who worked in country, observed a thirst for knowledge among the residents.



Photo: Advanced FETP resident Dr. Nyambe Sinyange and Resident Advisor Kip Baggett examine a possible case of plague in an affected village

“They really want to absorb the lectures. In Zambia, we taught problem analysis, something I was unsure about whether or not it would go over well. We never learned it when I was in school and I couldn’t immediately understand the application. But the students picked it up right away; they had lots of problems they wanted to analyze and address at their field sites. After they went back to the field, we got photos of their problem analysis diagrams hanging in their district offices. I’m really excited to see what they present at the next workshop, which will be about how they implemented changes to address the problems they identified and analyzed.”

JULIE HARRIS, Epidemiologist. FETP

FELTP PAKISTAN: WORKING TO PROTECT THE LIVES OF CHILDREN

Measles, diphtheria, and pertussis are serious diseases easily preventable by vaccines. In Pakistan, safe access to vaccines for eligible children is inconsistent, and vaccine-preventable diseases often circulate undetected. Outbreaks can signal gaps in immunization. When that happens, the Field Epidemiology and Lab Training Program (FELTP) is often on the scene making a difference. Recently, residents used outbreak response as an opportunity to improve surveillance and vaccination efforts across the country. They:

- Responded to a diphtheria outbreak that sickened six children, killing two. They vaccinated 35 previously unimmunized children.
- Investigated two measles outbreaks and one pertussis outbreak, identifying cases, contacts, immunization status, and conducting responsive vaccination campaigns and community education about child immunizations. All outbreaks were stopped. Many people attribute this success to the new network of Provincial Disease Surveillance & Reporting Units that FELTP supports.
- Engaged various national stakeholders in a thoughtful and data-driven discussion to prioritize diseases for surveillance. By the end, participants had scored and ranked 32 diseases using standardized criteria. Measles, diphtheria, and pertussis all made the top part of the list.

With outbreaks of vaccine-preventable diseases like these popping up all over the map, especially in children, the work of disease detectives remains more critical than ever.



Photo: FELTP residents check children for vaccination status in Pakistan